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U. S. DEPARTMENT OF AGRICULTURE.  
BUREAU OF ANIMAL INDUSTRY.  
SPECIAL BULLETIN.

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REPORT  
ON THE  
BEEF SUPPLY OF THE UNITED STATES,  
AND  
THE EXPORT TRADE IN ANIMALS AND MEAT PRODUCTS.  
BY  
Dr. D. E. SALMON.

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(ADVANCE SHEETS FROM ANNUAL REPORT, 1889.)

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PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE.

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ANNOUNCEMENT.

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On account of the importance of the subject, and the desire expressed by many for immediate information, it has been thought best to distribute the following pages as advance sheets from the forthcoming annual report of the Department of Agriculture.

J. M. RUSK,  
*Secretary.*





# THE BEEF SUPPLY OF THE UNITED STATES AND THE LEADING CONDITIONS GOVERNING THE PRICE OF CATTLE.

The desire on the part of those interested in the production of beef cattle to obtain an approximate statement in regard to the number of cattle in the country and the relation of this number to the population for a series of years has led me to prepare an article on this subject for the report of this Bureau for 1887 and 1888. The delay in the publication of that volume, together with the fact that a year has passed since the article was prepared, makes it desirable that a brief statement should accompany this report, bringing down to the present the figures which were given at that time.

The estimated number of animals from which the beef supply is drawn gives but little idea as to whether this supply has increased more rapidly than the demands, or whether, on the other hand, it has diminished. Our rapidly increasing population and our fluctuating export trade must be constantly borne in mind, if we wish to hold clear views on this important subject.

There has been a feeling for a number of years that more accurate data should be obtained in regard to the number of the range cattle in the various States and Territories. It is probable that no accurate census of the range cattle has ever been secured, and nearly all the estimates, on account of the inherent difficulties of the case, have varied widely from each other, and probably from the true figures. In order to clear up this question somewhat, an effort was made during the year 1888 to obtain reliable data from the Western States and Territories. Accordingly, trusted agents of the Bureau, well acquainted with the range-cattle industry, were sent into the field to gather the most accurate figures possible from the cattle-owners' organizations and from other sources of information. The estimates of the Statistical Division of this Department have, as a rule, been taken as approximately correct for the number of cattle in the States, but in some cases these estimates have been revised in accordance with more recent information received from the agents of this Bureau. The population since 1880 has been estimated on a basis of a 2 per cent. annual increase in addition to the immigration.

Taking our figures from these sources we obtain the following table:

*Table showing population, total number of cattle, and number of cattle per 1,000 of population (estimated since 1880) in the United States and Territories.*

Years.	Popula- tion.	Total cattle.		Years.	Popula- tion.	Total cattle.	
		Number.	Per 1,000 of population.			Number.	Per 1,000 of population.
1850.....	23, 191, 876	17, 778, 907	767	1884.....	56, 955, 487	44, 800, 674	787
1860.....	31, 443, 321	25, 020, 019	815	1885.....	58, 489, 943	46, 794, 256	800
1870.....	38, 558, 371	23, 820, 608	618	1886.....	59, 999, 945	47, 612, 283	794
1880.....	50, 155, 783	37, 008, 453	738	1887.....	61, 083, 933	48, 308, 623	783
1881.....	51, 826, 889	38, 551, 471	744	1888.....	63, 464, 501	48, 923, 880	771
1882.....	53, 653, 889	40, 672, 765	758	1889.....	65, 172, 405	49, 417, 101	758
1883.....	55, 830, 289	42, 777, 898	773				

This table shows some interesting facts. At the first approximately accurate census of cattle in 1850 there were 767 cattle to the 1,000 of population. This number increased in 1860 to 815, showing a large stock of cattle on hand at that time. In 1870, partly from the effects of the war, and partly from an underestimate of the number of cattle in the country by the census of that year, we find the number of cattle reduced to 618 per 1,000 of population. In 1880 the number per 1,000 increases to the extent of 120 and reaches 738. In 1881 there is an increase of 6 per 1,000; from 1881 to 1882 the increase is 14 per 1,000; from 1882 to 1883 it is 15 per 1,000, being the largest apparent increase in any one year; from 1883 to 1884 the increase is 14 per 1,000; and from 1884 to 1885 it is 13 per 1,000, reaching the highest point since 1860, or 800 cattle per 1,000 population.

Since 1885 there has been, according to these estimates, a steady decrease in the relative number of cattle. From 1885 to 1886 this was 6 per 1,000; from 1886 to 1887 it was 11 per 1,000; from 1887 to 1888 it was 12 per 1,000; and from 1888 to 1889 it was 13 per 1,000. The total decrease in cattle per 1,000 population from 1885 to 1889 amounted to 42, and the proportion was then as 758 to 1,000.

A somewhat clearer presentation of the beef supply is obtained by separating the milch cows from the other cattle and considering the latter alone. These figures will be found in the table which is given below:

*Table showing the total number of milch cows and of other cattle and the number of each per 1,000 of population.*

Years.	Milch cows.		Other cattle.		Years.	Milch cows.		Other cattle.	
	Number.	Per 1,000 of population.	Number.	Per 1,000 of population.		Number.	Per 1,000 of population.	Number.	Per 1,000 of population.
1850 .....	6,385,094	275	11,393,813	491	1884 .....	13,502,899	237	31,297,775	550
1860 .....	8,585,735	273	17,034,284	542	1885 .....	13,906,534	238	32,887,722	562
1870 .....	8,935,332	232	14,885,276	386	1886 .....	14,237,327	237	33,374,956	556
1880 .....	12,443,120	248	24,565,333	490	1887 .....	14,524,158	235	33,784,465	548
1881 .....	12,538,216	242	26,013,255	502	1888 .....	14,858,634	234	34,065,246	537
1882 .....	12,666,031	236	28,006,734	522	1889 .....	15,300,934	235	34,116,167	523
1883 .....	13,127,267	237	29,650,631	536					

One of the remarkable facts brought out by this table is that since 1870 the proportion of milch cows to population has been practically constant. In 1850 there were 275 per 1,000, and in 1860, 273 per 1,000. In 1870 this number decreases to 232, or about 15 per cent., and increased in the ten years from 1870 to 1880 to 248, being at the rate of 1.6 per annum. In the seven years from 1882 to 1889 there has been a variation of only 2 per 1,000 in either direction from the number in the first named year. The reduction from 275 per 1,000 in 1850 to 235 per 1,000 in 1889, or about 15 per cent., has undoubtedly been more than counterbalanced by improvements in the quality of the stock, so that the quantity of dairy products yielded in proportion to the population is greater instead of being less than in 1850.

If we turn our attention now to the "other cattle," from which our beef supply is mostly obtained, we find, in 1850, 491 per 1,000 of population. In 1860 this number increased to 542 per 1,000, or over 10 per cent., and in consequence of the war and an incorrect estimate had dropped by 1870 to 386, a decrease in ten years of 28.7 per cent.

In 1880 the number of this class of cattle per 1,000 of population had increased to 490, the proportion being almost exactly the same as in 1850. From 1880 to 1885 there was a continuous and rapid increase, which was due to the remarkable development of the range cattle industry in that period. Thus, in 1881 there were 502 per 1,000; in 1882 there were 522 per 1,000; in 1883, 536 per 1,000; in 1884, 550 per 1,000; and in 1885, 562 per 1,000. The increase in the five years from 1880 to 1885 was 72 per 1,000 of population, or about 15 per cent.

Since 1885 there has been a perceptible and continuous decrease in the proportion of cattle to population. From 1885 to 1886 this decrease was only 6 per 1,000 of population; from 1886 to 1887 it was 8 per 1,000; from 1887 to 1888 it was 11 per 1,000; and from 1888 to 1889 it was 14 per 1,000. In the four years the decrease amounted to 39 per 1,000 of population, or about 7 per cent. of the number given for 1885. The proportion of cattle to population in 1889 was almost exactly the same as in 1882.

In considering the proportion of cattle to population and in drawing conclusions as to the relative beef supply in different years, the fact should not be overlooked that there has been a great change within the last twenty years in the character of steers that have been sent to market. New and better blood has been infused into the old stock, and the result is that steers are marketed younger, weigh more, and yield a larger proportion of carcass than formerly. The beef supply obtained from a given number of cattle is for this reason considerably larger than it was a few years ago. The increased number of cattle per 1,000 of population does not, therefore, represent the whole increase in the beef supply which has taken place since 1870. There is, in addition, an increase resulting from early maturity, size, and quality which can only be estimated with great difficulty and uncertainty.

It is impossible to obtain accurate information as to the number of steers slaughtered annually in this country for beef, or to reach this number by even an approximate estimate. For this reason, the actual beef supply which yearly goes upon the market is an unknown quantity. It becomes necessary, therefore, to judge of the supply by the total stock of cattle on hand in the country. Such deductions are subject at best to grave errors which are liable to arise from a larger proportion of cattle being marketed one year than another, in order to meet temporary financial emergencies, because of lack of feed, or because of a better price for cattle as compared with the price of corn and hay.

The demand for meat for home consumption should be tolerably constant in a series of years like those of the present decade, during which there has been no marked financial depression. There is undoubtedly, however, a considerable influence exerted upon the demand for beef by the quantity and price of pork products. In other words, when the production of pork is abundant and the price low there will be less beef consumed than when these conditions are reversed. The quantity of beef exported must also have an important influence upon the demand and upon the price.

With the facts mentioned above in mind, the following table is presented to show the relation between the relative number of cattle in the country and the mean price of steers. It is impossible to give a true average price of steers from the data on hand, but the mean price is a sufficient indication of the extent and direction of the fluctuations from year to year. The mean price of cattle and hogs given



in the tables which follow are computed from quotations given in the Drovers' Journal.

*Table showing the proportion of cattle to population, the value of cattle and beef products exported, and the mean price of beef steers in Chicago.*

Years.	No. of cattle (excluding milch cows) per 1,000 of population.	Exports of cattle and beef products.	Mean price of steers in Chicago per 100 pounds.	Years.	No. of cattle (excluding milch cows) per 1,000 of population.	Exports of cattle and beef products.	Mean price of steers in Chicago per 100 pounds.
1878 .....			\$4.25	1884 .....	550	\$36,286,626	\$6.05
1879 .....			4.60	1885 .....	562	32,014,002	5.15
1880 .....	490	\$31,544,360	5.75	1886 .....	556	27,320,300	4.75
1881 .....	502	32,801,705	5.90	1887 .....	548	21,853,718	4.60
1882 .....	522	22,680,272	6.77	1888 .....	537	25,764,994	4.87
1883 .....	536	25,004,746	5.67	1889 .....	523	35,535,134	4.35

The above table shows that in 1880, with a steady increase in the price of steers since 1878, with 490 cattle other than milch cows to the 1,000 of population, and with an export of cattle and beef products amounting to \$31,544,360, the mean price of butchers' steers in the Chicago market was \$5.75 per 100 pounds. From 1880 to 1881 there was an increase in the number of cattle of 12 per 1,000 of population, the exports increased over \$1,000,000, and the mean price of steers increased 15 cents per 100 pounds.

In 1882 we find a remarkable increase in the price of steers, which can not be explained by the data which has been furnished. With an increase of 20 cattle other than milch cows per 1,000 of population and a falling off in the export trade of over \$10,000,000, the price of cattle not only advanced, but reached the highest point of the decade. The increase in the mean price of steers from 1881 to 1882 was 87 cents per 100 pounds.

The mean price of steers in 1883 was \$1.10 per 100 pounds lower than in 1882. The exports for the year had increased \$2,500,000, and the number of cattle other than milch cows per 1,000 of population was 14 greater than in the preceding year. Here again the fluctuation of price is much greater than the table would lead us to expect. In 1884, with an increase of \$11,500,000 in the exports and with 14 more cattle per 1,000 of population, the price advanced 42 cents, and reached \$6.05 per 100 pounds. In 1885, with the number of cattle per 1,000 of population at the highest point and with a falling off of \$4,000,000 in exports, the price dropped to \$5.15 per 100 pounds. In 1886 and 1887, with a slight decrease in the relative number of cattle and with a large reduction in exports, the price of steers decreased 35 cents in 1886 and 15 cents in 1887. The export trade revived somewhat in 1888, and the number of cattle in proportion to population continued to decrease; we are not surprised to find, therefore, an advance of 27 cents per 100 pounds in the mean price of beef steers. In 1889, with an increase of nearly \$10,000,000 in the exports and a decrease of 14 cattle other than milch cows per 1,000 of population, the mean price of steers declined 52 cents per 100 pounds.

Having examined the table given above somewhat critically, we are forced to the conclusion that the fluctuation in the price of steers can not be explained by the simple consideration of the number of cattle in proportion to the population or by combining this information with the statistics of the export trade. The chief disturbing

condition, and one to which we have already referred, is the price of hogs. To illustrate the influence of these conditions the following table is added:

*Table showing the mean price of hogs and beef steers in Chicago for the years from 1879 to 1889, inclusive.*

Years.	Mean price of hogs in Chicago, per 100 pounds.	Mean price of steers in Chicago, per 100 pounds.	Years.	Mean price of hogs in Chicago, per 100 pounds.	Mean price of steers in Chicago, per 100 pounds.
1879 .....	\$3.52	\$4.60	1885 .....	\$4.12	\$5.15
1880 .....	5.05	5.75	1886 .....	4.25	4.75
1881 .....	5.95	5.90	1887 .....	4.88	4.60
1882 .....	7.32	6.77	1888 .....	5.82	4.87
1883 .....	6.07	5.67	1889 .....	4.38	4.35
1884 .....	5.75	6.05			

Now, comparing the mean price of hogs and steers we find that the extraordinary advance in the price of steers in 1882 coincided with the even greater advance in the price of hogs. The largely decreased price of steers in 1883 also coincided with the equal decrease in the price of hogs. In 1884 we find a decrease of 32 cents per 100 pounds in the price of hogs and an increase of 38 cents per 100 pounds in the price of steers; this would appear to be due to the large exports of cattle and beef products in that year. In 1885 and 1886 the large number of cattle in proportion to population, the falling off in the export trade, and the low price of hogs all exerted a downward influence on the price of cattle.

The price of hogs increased considerably in 1887, but the price of steers declined still further. This was no doubt the result of the falling off in our export trade from \$27,320,390 in 1886 to \$21,853,718 in 1887. The slight advance in cattle prices in 1888 coincides with the much greater advance in the price of hogs, but must have been also influenced by the increased exports of cattle and beef products. In 1889 the mean price of hogs dropped \$1.44 per 100 pounds, and this coincided with the decline in the mean price of steers of 52 cents per 100 pounds, a greater decline in the price of steers being evidently prevented by the large increase in the export trade. It has been evident from the receipts of cattle at the leading stock-yards of the country that a very large number of such animals have been marketed in proportion to the stock on hand, and this has been one of the leading factors which operated to decrease the price of steers. With the decline in the prices the profits in cattle raising have been greatly reduced and in many localities this industry has been conducted at a positive loss. The inevitable tendency has therefore been to sell off the stock and reduce the business, and consequently the proportionate number of cattle marketed has been much greater than during the years from 1881 to 1884, when the industry was paying and the stock on hand was being increased. For this reason the markets of the country have not felt the influence of the reduction of the stock of cattle in proportion to the population, which the tables plainly show has occurred and which must continue at an increasing rate from year to year.

The tendency of prices with cattle will probably be to advance within the next year or two on account of the improbability of increasing the stock of cattle as rapidly as the population is aug-

menting, but this advance will be slow and uncertain for a number of years. It will be at least two years before the stock of cattle has been reduced to the proportion as compared to population which existed in 1878, and then the mean price of steers was but \$4.25 per 100 pounds, or 10 cents less than in 1889. In other words the price of steers for several years in the future will depend more on the price of hogs, upon the value of the exports of cattle and beef products, and upon the proportion of steers marketed, than upon any changes likely to occur in the number of cattle per 1,000 of population existing in the country.

#### THE EXPORT TRADE IN ANIMALS AND MEAT PRODUCTS.

During the calendar year 1889 the exports of animals and meats were unusually large. The number of cattle exported reached 329,-271, which is greatly in excess of those of any previous year. The largest number sent abroad in any preceding year was 190,518, in 1884. The large exports of 1889 were due to a number of conditions, primarily no doubt to the low price of cattle in the United States. The active demand in Great Britain has been an important factor, as also the freedom of nearly the whole of the United States from any dangerous contagious disease. With the rapid eradication of pleuropneumonia in this country and its limitation at the most to three or four counties, the confidence in American beef cattle has increased, and there is greater willingness to receive and handle them. The following tables show the exports of animals and meat products for the calendar years 1888 and 1889:

*Table showing number and value of animals exported for the calendar years ending December 31, 1888 and 1889.*

Animals.	1889.		1888.	
	Number.	Value.	Number.	Value.
Cattle .....	329, 271	\$25, 673, 366	154, 813	\$12, 998, 977
Hogs .....	87, 353	741, 264	19, 396	159, 198
Horses .....	4, 288	689, 964	2, 287	417, 483
Mules .....	3, 197	376, 391	2, 902	362, 674
Sheep .....	143, 161	393, 185	117, 718	243, 483

*Table showing exports of meat products for the calendar years ending December 31, 1888 and 1889.*

Meat products.	1889.		1888.	
	Pounds.	Value.	Pounds.	Value.
Beef products:				
Beef, canned.....	71, 769, 708	\$6, 026, 970	45, 298, 849	\$3, 807, 685
Beef, fresh.....	170, 992, 606	13, 002, 713	106, 411, 092	9, 591, 481
Beef, salted or pickled.....	72, 915, 854	3, 881, 077	50, 377, 426	2, 819, 047
Beef, other cured.....	209, 968	18, 658	106, 255	10, 665
Tallow .....	99, 637, 118	4, 717, 329	75, 470, 826	3, 736, 488
Hog products:				
Bacon .....	471, 743, 869	36, 320, 774	302, 128, 089	25, 958, 915
Hams.....	55, 469, 050	5, 990, 570	40, 243, 275	4, 622, 032
Pork, fresh .....	227, 735	13, 080	47, 265	3, 354
Pork, pickled.....	77, 231, 712	4, 997, 687	57, 772, 922	4, 414, 923
Lard .....	398, 337, 428	30, 422, 370	270, 245, 146	23, 516, 097
Mutton .....	350, 779	30, 642	205, 822	16, 955



## Exports during Fiscal Year ending June 30, 1889.

### *Number and Value of Animals.*

Year.	Cattle.		Hogs.		Horses.		Mules.		Sheep.	
	Num-ber.	Value.	Num-ber.	Value.	Num-ber.	Value.	Num-ber.	Value.	Num-ber.	Value.
1889.	265,786	\$16,616,917	45,128	\$356,764	3,748	\$592,469	2,980	\$356,333	128,852	\$366,181

### *Quantity of Beef Products.*

Year.	Beef, canned.	Beef, fresh	Beef, salted, pickled, and other cured.	Tallow.
1889.....	<i>Pounds.</i> 51,025,254	<i>Pounds.</i> 137,895,391	<i>Pounds.</i> 55,200,435	<i>Pounds.</i> 77,841,555

### *Value of Beef Products.*

Year.	Beef, canned.	Beef, fresh.	Beef, salted or pickled.	Beef, other cured.	Tallow.
1889.....	\$4,375,213	\$11,481,861	\$3,043,324	\$17,819	\$3,942,024

### *Quantity and Value of Pork Products.*

Year.	Bacon and hams.		Pork, fresh and pickled.		Lard.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
1889.	400,224,646	\$34,651,847	64,133,639	\$4,735,077	318,242,990	\$27,329,173





The following tables, showing the exports for ten years ending with 1888, are added for reference and comparison. It should be observed that the years referred to in these tables are fiscal years ending June 30, while in the preceding tables they are for the calendar year ending December 31.

*Table showing number and value of animals exported for each year from 1879 to 1888, inclusive.*

Years.	Cattle.		Hogs.		Horses.		Mules.		Sheep.	
	Num-ber.	Value.	Num-ber.	Value.	Num-ber.	Value.	Num-ber.	Value.	Num-ber.	Value.
1879 .....	136,720	\$8,379,200	75,129	\$700,262	3,915	\$770,742	4,153	\$530,989	215,680	\$1,082,938
1880 .....	182,756	13,344,195	83,494	421,089	3,060	675,139	5,198	532,362	209,137	892,647
1881 .....	185,707	14,304,103	77,456	572,133	2,523	390,243	3,307	353,924	179,019	762,982
1882 .....	103,110	7,800,227	36,368	509,651	2,248	470,183	2,632	320,130	139,676	603,778
1883 .....	104,444	8,341,431	16,120	272,516	2,800	475,806	4,237	486,560	337,251	1,154,856
1884 .....	190,518	17,855,495	46,382	627,480	2,721	424,317	3,742	498,800	273,574	850,146
1885 .....	135,890	12,906,600	55,025	579,183	1,947	377,632	1,028	127,580	234,500	512,568
1886 .....	119,065	10,958,954	74,187	674,237	1,616	348,323	1,191	148,711	177,594	329,844
1887 .....	106,459	9,172,136	75,383	564,753	1,611	351,637	1,754	214,734	121,701	254,725
1888 .....	140,203	11,577,578	23,755	193,017	2,263	412,774	2,971	378,765	143,817	280,490

*Table showing quantity of beef products exported for each year from 1879 to 1888, inclusive.*

Years.	Beef, canned.	Beef, fresh.	Beef, salted, pickled, and other cured.	Tallow.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
1879 .....	54,025,832	36,950,563	99,963,752	
1880 .....	84,717,194	45,237,472	110,767,627	
1881 .....	106,004,812	40,608,649	96,403,372	
1882 .....	69,586,466	45,899,737	50,474,210	
1883 .....	81,064,373	41,680,623	38,810,098	
1884 .....	120,784,064	43,021,074	63,091,100	
1885 .....	115,780,830	48,716,138	50,431,719	
1886 .....	99,423,562	59,728,325	40,919,951	
1887 .....	43,050,588	83,560,874	36,479,379	63,278,403
1888 .....	40,458,375	93,498,273	49,084,420	92,483,052

*Table showing value of beef products exported for each year from 1879 to 1888, inclusive.*

Years.	Beef, canned.	Beef, fresh.	Beef, salted or pickled.	Beef, other cured.	Tallow.
1879 .....	\$7,311,408	\$4,883,080	\$2,336,378	.....	\$6,934,940
1880 .....	7,877,200	7,441,918	2,881,047	.....	7,689,232
1881 .....	5,971,557	9,860,284	2,665,761	.....	6,800,628
1882 .....	4,208,608	6,768,881	3,902,556	.....	4,615,798
1883 .....	4,578,902	8,342,131	3,742,282	.....	3,248,749
1884 .....	3,173,767	11,987,331	3,202,275	\$67,758	4,793,375
1885 .....	4,214,791	11,199,481	3,619,145	73,895	3,322,476
1886 .....	3,426,453	9,201,011	3,544,379	89,593	2,144,499
1887 .....	3,462,982	7,228,412	1,972,246	17,942	2,836,300
1888 .....	3,339,077	8,231,281	2,606,479	9,204	4,252,653

*Table showing quantity and value of pork products exported for each year from 1879 to 1888, inclusive.*

Years.	Bacon and hams.		Pork, fresh and pickled.		Lard.	
	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
1879 .....	732,249,576	\$51,074,413	84,401,676	\$4,807,568	326,658,686	\$22,856,673
1880 .....	759,773,109	50,987,623	95,949,780	5,930,252	374,979,286	27,920,267
1881 .....	746,944,545	61,161,205	107,928,086	8,272,285	378,142,496	35,226,575
1882 .....	468,026,640	46,675,774	80,447,466	7,201,270	250,367,740	28,975,902
1883 .....	340,258,670	38,155,952	62,116,302	6,192,268	224,718,474	26,618,048
1884 .....	389,499,368	39,684,845	60,548,730	4,762,715	265,094,719	25,305,953
1885 .....	400,127,119	37,083,948	72,073,468	5,203,943	283,216,339	22,595,219
1886 .....	419,788,802	31,640,211	87,267,715	5,123,411	239,728,019	20,361,786
1887 .....	419,922,955	33,314,670	85,893,297	5,641,327	321,533,746	22,703,921
1888 .....	375,439,683	32,175,633	58,900,153	4,373,114	237,740,007	22,751,105

The large export trade of the year just ended has done much to relieve the markets of this country and to maintain the price of cattle and beef. While cattle have sold somewhat lower than during 1888 the decline has been very much less than in pork, as has been shown in the preceding section of this report. The enormous corn crop of this year and the low average price of this important article of animal food has been a most important factor in depressing the price of both hogs and cattle. According to the estimates of the Statistical Division of this Department the average price of the last corn crop is but 28.3 cents per bushel, being much the lowest average of any crop raised during the last ten years.

Notwithstanding the fact that the number of cattle in this country per thousand of population has been slowly decreasing during the past four years, the large proportion of these animals that are being marketed still keeps the market overstocked and makes it extremely important that every effort should be made to maintain the export trade at least to its present extent, and, if possible, to increase it. The only danger to the trade in live cattle which has been suggested during the year is the occasional discovery of an animal which the English veterinary authorities supposed to be affected with contagious pleuro-pneumonia. It is impossible to understand how any of the beef cattle going abroad can be infected with this disease. After the most careful and extended investigations in the United States, this Bureau has been unable to discover any pleuro-pneumonia in any section from which steers are shipped. The only districts in which this disease does exist are two counties on Long Island and one county in New Jersey. The Long Island district is isolated and no cattle from it go into the stock-yards through which the export cattle pass. The infected district in New Jersey is very nearly free from the disease, and while it is not isolated, like the Long Island district, no steers are raised for beef in this section and the stock-yards are believed to be thoroughly protected.

For the reasons given above we are led irresistibly to the conclusion that the disease found in the lungs of American steers when slaughtered on the English wharves is a sporadic inflammation which probably in most cases arises from exposure during the voyage. It is well known that generally no special characters are found by which contagious pleuro-pneumonia can be distinguished with certainty from the sporadic form of inflammation of the lungs and pleura. In making a diagnosis the veterinarian is always assisted

by the history of contagion in the herds in which the disease is found, and, in the absence of such a history, if a single case of inflammation of the lungs and pleura is discovered it is difficult or impossible to make a positive diagnosis. With American steers slaughtered in England it is impossible, under existing conditions, to have any history of the animals, and as but a single steer is usually found affected in a whole cargo there is nothing to indicate that the malady discovered is of a contagious nature.

It is plain that the diagnosis of the English veterinarians in the cases of supposed pleuro-pneumonia among our steers must be more or less uncertain and open to doubt, without reflecting in the least upon the professional ability and competency of the inspectors making the examination. As this trade has grown to such an extent, and is of such great importance to the cattle industry of this country, it would seem very proper that we should take some means to determine whether the animals pronounced affected with contagious pleuro-pneumonia are really suffering from this disease. This fact could probably be determined by stationing one or more agents of the Department in England to examine the lungs of animals pronounced diseased and to determine as accurately as possible the exact conditions of their organs. The animals going abroad might also be numbered at the time of their shipment from the American ports according to some system by which any individual animal might be traced back to the herd from which it came. In this way it would be possible to determine whether such an animal had been in any way exposed to the contagion of pleuro-pneumonia. With such precautions it would seem possible to settle this long contested question as to whether the disease found by English inspectors in American steers is or is not contagious pleuro-pneumonia.

Another important consideration in connection with this trade relates to the possibility of increasing the number of animals exported. To what extent this can be accomplished it is impossible to determine. During the last six months the shipments have been about as large as possible with the present capacity of the regular lines of vessels plying between this country and Great Britain. With a continued trade of the present magnitude no doubt the carrying capacity would be soon increased, but this is one of the important factors which has prevented a still larger trade. Farmers and small shippers who have endeavored to send cattle abroad have found that the total space in the steamers had been contracted for months in advance by the large shippers. With sufficient facilities for shipment there is no doubt that the markets of Great Britain would at present take more cattle than are being sent.

The greatest hindrance to the export trade in live cattle is the regulation of the British Government requiring that all American cattle shall be slaughtered on the docks within a period of ten days after they are landed. This prevents the owner from holding them until they can recover from the effects of the voyage and until the market is in the best condition for selling. Canadian cattle, which are allowed to enter England without any restrictions, are said to yield the shipper from \$10 to \$15 per head more than can be realized from steers shipped from the United States. The effect of this difference in returns is very marked, both upon our trade and upon the market value of cattle in the United States. If our shippers were able to secure \$10 or \$15 per head more for their animals it would of course



stimulate the trade, and they would be able to pay nearly that amount more for steers purchased in this country. Such an advance in the price of export cattle would have a strong tendency to increase the price of all other kinds of stock. In this respect, then, the removal of the restrictions would be of the very greatest advantage to American cattle-raisers.

The removal of the English restrictions would also enable our shippers to send a kind of cattle which now can not be exported at all to Great Britain. There is no doubt but that our thin steers, or feeders as they are called, could be supplied to the English farmers for feeding purposes much cheaper than store cattle are now obtained from Ireland. The vast numbers of this class of steers which have been thrown upon the markets of the United States during the last three or four years have so exceeded the supply that prices have declined below the cost of production. The inevitable tendency is to force down the price of all meat-producing animals. If the foreign trade would take a considerable number of these thin steers it would be of the greatest benefit in sustaining the prices in this country. The English farmers are already agitating this question and are looking to the United States as a possible source of supply. The prices of Irish store cattle have been so high, and the danger of these animals being infected with pleuro-pneumonia is such that there is no doubt that it would be of great advantage to the feeders of both England and Scotland if they could obtain the cheap and healthy steers which are found in such numbers in all the American markets.

The number of this class of cattle which the English market could take is very uncertain. It has been suggested abroad that four or five thousand store cattle per day might be shipped from here. It does not appear probable that anything like this number could be sold to Great Britain for any considerable time. During the last five years the largest number of store cattle for feeding and breeding purposes sent from Ireland to England and Scotland in any one year is 405,540, or about 1,100 per day. This would indicate that from 100,000 to 150,000 store cattle per year would be as much as we could expect to send, if the restrictions were removed and the facilities provided for shipping that many animals in addition to the regular trade in fat cattle. Even this number would greatly relieve our markets and tend to restore prices to a point which would remunerate our farmers for the cost of production.

It has been suggested that Ireland would probably take a large number of our heifer stock for increasing their breeding herds. It is also possible that our store cattle might be sent to Ireland for fattening. What the effect of this would ultimately be on our trade in fat cattle can not easily be predicted, but for a time at least it would not be great, because the store cattle shipped to Great Britain and Ireland would simply replace cattle which under other circumstances they would raise. It would, however, enable them within a few years to put more beef steers upon the home market, and in that way tend to lessen the number of fat cattle which would be taken from abroad. This need not cause any anxiety, because before such a result could be reached the over-production of cattle in this country would be a thing of the past. There can be but little doubt that within the next four or five years the population of the United States will have so increased beyond the development of the cattle industry that there will no longer be the same necessity of a large export trade.

It has been urged as an objection to exporting store cattle that it would be better for our farmers to feed them at home and ship them in a fat condition. This objection is rather theoretical than practical, and should at the present have little weight. As a matter of fact large numbers of store cattle are thrown upon our markets and depress prices, and, instead of being purchased for feeding, are killed and used for canning purposes. To send a part of these abroad would relieve the market and would not in the least lessen the number of steers that would be fed in this country. Undoubtedly it would be a better agricultural operation to feed such cattle at home and sell them fat than to sell them as store cattle, but as long as prices are so low that feeding is unprofitable they would be thrown upon the market, and it is just as well for them to go abroad as to be killed and canned in this country. The only question to be decided is, in what way would the American farmer obtain the best price for his stock. If the restrictions were removed there is no doubt that a better price could be obtained by exporting store cattle than to kill them here for canning.

The other markets of Europe are being closed against live cattle. An experimental shipment sent to Germany during the past summer realized excellent prices, and undoubtedly a large trade would have resulted were it not for the prohibitory restrictions which were at once enforced.

As has been shown above, the price of cattle in this country is greatly influenced by the price of pork. For this reason any increase of our exports in pork products would have a tendency not only to increase the price of pork in this country, but it would undoubtedly react upon the cattle trade and improve the price of beef as well. For this reason it is particularly important that efforts should be continued to secure the revocation of the prohibitory restrictions placed by various European nations upon our pork products.

There is little doubt that the markets of Europe would take all the surplus animals and meat products of the United States if these markets were not partially or entirely closed by arbitrary restrictions. Our breeding stock has now been improved until our animals compare favorably with those of any other country. They are raised under the most healthful conditions, and their price is far below that of animals of equal quality which can be obtained in any part of the world. There is, consequently, every reason why the people of Europe, where meat is so high in price as to be a luxury rather than a staple article of food with the masses, should look to this country to supply their needs.





